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Gated Power for a Satellite Hopped Downlink with Multiple Payloads Per Frame

ABSTRACT OF THE DISCLOSURE

A power gating module (200) for a downlink beam frame signal (402) includes a power amplifier (210) 5 for amplifying for transmission frame signals that include at least a first header signal (418), a first payload signal (420), a second header signal (424), and a second payload signal (426). The power gating module (200) further includes a power gating circuit 10 (300) coupled to the power amplifier (210). The power gating circuit (300) includes a power gate input (318) and is responsive to a power gating signal to remove power from at least one of the first header signal (418) and first payload signal (420) in combination, 15 and the second header signal (424) and second payload signal (426) in combination before amplification by the power amplifier (210).